

RAW SEQUENCE LISTING ERROR REPORT

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| Application Serial Number: | 10 1009,508 |
|----------------------------|-------------|
| Source: | - CT |
| Date Processed by STIC: | 9-25-03 |

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FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

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- 1. EFS-Bio (http://www.uspto.gov/ebc/efs/downloads/documents.htm, EFS Submission User Manual ePAVE)
- 2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
- 3. Hand Carry directly to:
 - U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
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Revised 04/24/2003



RAW SEQUENCE LISTING

DATE: 09/25/2003

PATENT APPLICATION: US/10/009,508

TIME: 17:32:53

Input Set: A:\20093-10seq.txt

Output Set: N:\CRF4\09252003\J009508.raw

- 3 <110> APPLICANT: Northwest Biotherapeutics, Inc.
- 5 <120> TITLE OF INVENTION: METHODS FOR THE DIAGNOSIS AND TREATMENT OF METASTATIC
- PROSTATE TUMORS
- 8 <130> FILE REFERENCE: 8511-025-228
- C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/009,508
- C--> 11 <141> CURRENT FILING DATE: 2003-05-19
 - 13 <160> NUMBER OF SEQ ID NOS: 16
 - 15 <170> SOFTWARE: PatentIn Ver. 2.0

ERRORED SEQUENCES

Does Not Comply Corrected Diskette Needed

375 <210> SEQ ID NO: 2 376 <211> LENGTH: 1298 377 <212> TYPE: PRT 378 <213> ORGANISM: Homo sapiens 380 <400> SEQUENCE: 2 381 Met Gln Arg Gly Ala Ala Leu Cys Leu Arg Leu Trp Leu Cys Leu Gly 384 Leu Leu Asp Gly Leu Val Ser Asp Tyr Ser Met Thr Pro Pro Thr Leu 20 25 387 Asn Ile Thr Glu Glu Ser His Val Ile Asp Thr Gly Asp Ser Leu Ser 390 Ile Ser Cys Arg Gly Gln His Pro Leu Glu Trp Ala Trp Pro Gly Ala 393 Gln Glu Ala Pro Ala Thr Gly Asp Lys Asp Ser Glu Asp Thr Gly Val 70 396 Val Arg Asp Cys Glu Gly Thr Asp Ala Arg Pro Tyr Cys Lys Val Leu 399 Leu Leu His Glu Val His Ala Asn Asp Thr Gly Ser Tyr Val Cys Tyr 100 · 105 402 Tyr Lys Tyr Ile Lys Ala Arg Ile Glu Gly Thr Thr Ala Ala Ser Ser 115 120 405 Tyr Val Phe Val Arg Asp Phe Glu Gln Pro Phe Ile Asn Lys Pro Asp 135 408 Thr Leu Leu Val Asn Arg Lys Asp Ala Met Trp Val Pro Cys Leu Val 150 155 411 Ser Ile Pro Gly Leu Asn Val Thr Leu Arg Ser Gln Ser Ser Val Leu 170 414 Trp Pro Asp Gly Gln Glu Val Val Trp Asp Asp Arg Arg Gly Met Leu 185 180 417 Val Ser Thr Pro Leu Leu His Asp Ala Leu Tyr Leu Gln Cys Glu Thr 418 200

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Input Set : A:\20093-10seq.txt

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| 420 421 | | Trp 210 | Gly | Asp | Gln | Asp | Phe 215 | Leu | Ser | Asn | Pro | Phe 220 | Leu | Val | His | Ile |
|------------|-----|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|------------|------------|------------|------------|
| 423 | | Gly | Asn | Glu | Leu | Tyr 230 | | Ile | Gln | Leu | Leu 235 | | Arg | Lys | Ser | Leu 240 |
| | | Leu | Leu | Val | Gly 245 | | Lys | Leu | Val | Leu 250 | Asn | Cys | Thr | Val | Trp 255 | |
| | Glu | Phe | Asn | Ser 260 | | Val | Thr | Phe | Asp 265 | | | Tyr | Pro | Gly 270 | | Gln |
| | Ala | Glu | Arg 275 | | Lys | Trp | Val | Pro 280 | | Arg | Arg | Ser | Gln 285 | | Thr | His |
| | Thr | Glu 290 | | Ser | Ser | Ile | Leu 295 | | Ile | His | Asn | Val 300 | | Gln | His | Asp |
| | Leu | Gly | Ser | Tyr | Val | Cys | | Ala | Asn | Asn | Gly | | Gln | Arg | Phe | Arg |
| | 305 | | | _ | | 310 | - | | | | 315 | | | , | | 320 |
| 441 442 | Glu | Ser | Thr | Glu | Val 325 | Ile | Val | His | Glu | Asn 330 | Pro | Phe | Ile | Ser | Val 335 | Glu |
| 444 445 | Trp | Leu | Lys | Gly 340 | Pro | Ile | Leu | Glu | Ala 345 | Thr | Ala | Gly | Asp | Glu 350 | Leu | Val |
| 447 448 | Lys | Leu | Pro 355 | Val | Lys | Leu | Ala | Ala 360 | Tyr | Pro | Pro | Pro | Glu 365 | Phe | Gln | Trp |
| 450 451 | Tyr | Lys 370 | Asp | Gly | Lys | Ala | Leu 375 | Ser | Gly | Arg | His | Ser 380 | Pro | His | Ala | Leu |
| | Val | Leu | Lys | Glu | Val | Thr | | Ala | Ser | Thr | Gly | | Tyr | Thr | Leu | Ala |
| | 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| 457 | | Trp | | | 405 | | - | | | 410 | | | | | 415 | |
| 459 460 | Val | Val | Asn | Val 420 | Pro | Pro | Gln | Ile | His 425 | Glu | Lys | Glu | Ala | Ser 430 | Ser | Pro |
| 462 463 | Ser | Ile | Tyr 435 | Ser | Arg | His | Ser | Arg 440 | Gln | Ala | Leu | Thr | Cys 445 | Thr | Ala | Tyr |
| 465 466 | Gly | Val 450 | Pro | Leu | Pro | Leu | Ser 455 | Ile | Gln | Trp | His | Trp 460 | Arg | Pro | Trp | Thr |
| | | Cys | Lys | Met | Phe | | Gln | Arg | Ser | Leu | - | Arg | Arg | Gln | Gln | |
| | 465 | Leu | Mot | Dro | Cln | 470 | 7.~~ | 7) ara | T~~ | 7. ~~ | 475 | Wal | Thν | Th∝ | Cln | 480 |
| 472 | Asp | ьец | Met | PIO | 485 | Cys | Arg | АЗР | пр | 490 | Ата | vaı. | 1111 | 1111 | 495 | ASP |
| 474 475 | Ala | Val | Asn | Pro 500 | Ile | Glu | Ser | Leu | _ | Thr | Trp | Thr | Glu | | Val | Glu |
| | Glv | Lys | Δen | | Thr | Val | Ser | T.ve | 505 Len | Val | Tla | Gln | Δen | 510 Ala | Asn | Val |
| 478 | ОТУ | цуз | 515 | шуз | 1111 | Val | Del | 520 | пец | Val | 110 | CIII | 525 | nια | non | vai |
| | Ser | Ala | | Tyr | Lys | Cys | Val | Val | Ser | Asn | Lys | Val | | Gln | Asp | Glu |
| 481 | | 530 | | | | | 535 | | | | | 540 | | | | |
| | | Leu | Ile | Tyr | Phe | | Val | Thr | Thr | Ile | | Asp | Gly | Phe | Thr | |
| | 545 | 0 | T | D | 0 | 550 | G1 . | . | . | 01 | 555 | 01 - | Б | 77 - 7 | . . | 560 |
| 487 | | Ser | _ | | 565 | | | | | 570 | _ | | | | 575 | |
| 489 490 | Ser | Cys | Gln | Ala 580 | Asp | Ser | Tyr | Lys | Tyr 585 | Glu | His | Leu | Arg | Trp 590 | Tyr | Arg |
| | Leu | Asn | Leu | Ser | Thr | Leu | His | Asp | Ala | His | Gly | Asn | Pro | Leu | Leu | Leu |

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| 402 | | | EOE | | | | | 600 | | | | | 605 | | | |
|-------|------------|----------|-----|------------|-----------|------------|-----------|------------|------------|--------------|-------------|-------|-----|--------------|----------|------------|
| 493 | 7 | C | 595 | 71.00 | 17. 1 | 1111 | T | 600 | 71. | mb .c | D | T | 605 | | Com | T 011 |
| 495 | ASP | _ | ьуѕ | ASII | vaı | HIS | | Pne | Ата | THE | PIO | | Ата | Ala | ser | ьeu |
| 496 | ~ 1 | 610 | | - 1 | _ | 6 3 | 615 | _ | | 7 . 3 | m1 | 620 | ^ | | ~ | - 1 |
| 498 | | GLu | vaı | Ala | Pro | _ | Ата | Arg | Hls | Ala | | ьеи | Ser | Leu | Ser | |
| 499 | | | | | | 630 | | | | | 635 | | | | * | 640 |
| 501 | Pro | Arg | Val | Ala | | Glu | His | Glu | Gly | | Tyr | Val | Cys | Glu | Val | Gln |
| 502 | | | | | 645 | | | | | 650 | | | | | 655 | |
| 504 | Asp | Arg | Arg | Ser | His | Asp | Lys | His | Cys | His | Lys | Lys | Tyr | Leu | Ser | Val |
| 505 | | • | | 660 | | | | | 665 | | | | | 670 | | |
| 507 | Gln | Ala | Leu | Glu | Ala | Pro | Arg | Leu | Thr | Gln | Asn | Leu | Thr | Asp | Leu | Leu |
| 508 | | | 675 | | | | | 680 | | | | | 685 | | | |
| 510 | Val | Asn | Val | Ser | Asp | Ser | Leu | Glu | Met | Gln | Cys | Leu | Val | Ala | Gly | Ala |
| 511 | | 690 | | | | | 695 | | | | | 700 | | | | |
| 513 | His | Ala | Pro | Ser | Ile | Val | Trp | Tyr | Lys | Asp | Glu | Arg | Leu | Leu | Glu | Glu |
| 514 | | | | | | 710 | - | - | - | - | 715 | | | | | 720 |
| 516 | Lvs | Ser | Glv | Val | Asp | Leu | Ala | Asp | Ser | Asn | Gln | Lvs | Leu | Ser | Ile | Gln |
| 517 | | | | | 725 | | | - - | | 730 | | | | | 735 | |
| 519 | Ara | Val | Ara | Glu | | Asp | Ala | Gĺv | Pro | | Leu | Cvs | Ser | Val | | Ara |
| 520 | 9 | | 9 | 740 | 0_0 | 1101 | | 011 | 745 | - 1 - | | 0,10 | | 750 | 010 | 5 |
| 522 | Pro | Lvs | Glv | | Val | Asn | Ser | Ser | | Ser | Val | Δla | Val | | Glv | Ser |
| 523 | 110 | шуо | 755 | Cyo | vai | 71011 | DCI | 760 | 1114 | DCI | val | 1114 | 765 | Olu | O-1 | 001 |
| 525 | Glu | Aen | | Glv | Sar | Mαt | Glu | | V = 1 | Tla | Ι.Δ.1 | V = 1 | - | Thr | G1 v | Val |
| 526 | GIU | 770 | цуз | Сту | DCI | 1100 | 775 | 116 | Val | 116 | пец | 780 | ОТУ | 1111 | ОТУ | Val |
| 528 | T10 | | V-1 | Dho | Dho | Ψ×n | | T 011 | T 011 | Lou | Tou | | Dho | Cvc | 7 cn | Mot |
| | | Ата | val | rne | rne | 790 | val | пеп | ьеи | ьеи | 795 | TTE | rne | Cys | ASII | |
| 529 | | 7) 20 00 | Dwa | 7.1. | 114. | | 7 | T1. | T | mb | | П | T | | т1. | 800 |
| 531 | Arg | Arg | Pro | Ala | | Ala | Asp | тте | гда | | СТУ | ıyı | ьeu | ser | | ile |
| 532 | N4 4- | 7 | D | C1 | 805 | 77 - 7 | D | T | C1 | 810 | 01 - | Q | C1 | m | 815 | 0 |
| 534 | мет | Asp | Pro | _ | GIU | vaı | Pro | ьeu | | GIU | GIN | Cys | GIU | _ | ьeu | ser |
| 535 | _ | _ | | 820 | 01 | _ | 01 | - | 825 | - | 6 3 | | - | 830 | - | 0.1 |
| 537 | Tyr | Asp | | Ser | GIN | Trp | GIU | | Pro | Arg | Glu | Arg | | HIS | ьeu | GTA |
| 538 | _ | | 835 | 6 1 | | | | 840 | ~ 1 | _ | | | 845 | 7 . 7 | _ | - 1 |
| 540 | Arg | | Leu | GLY | Tyr | GLY | | Phe | GLy | Lys | Val | | GLu | Ala | Ser | Ala |
| 541 | | 850 | | | _ | | 855 | _ | _ | _ | | 860 | | | _ | |
| 543 | | Gly | Ile | His | Lys | | Ser | Ser | Cys | Asp | | Val | Ala | Val | Lys | |
| 544 | | | | | _ | 870 | | | | | 875 | _ | | | | 880 |
| 546 | Leu | Lys | Glu | Gly | | Thr | Ala | Ser | Glu | | Arg | Ala | Leu | Met | | Glu |
| 547 | | | | | 885 | | | | | 890 | | | | | 895 | |
| 549 | Leu | Lys | Ile | | Ile | His | Ile | Gly | | His | Leu | Asn | Val | Val | Asn | Leu |
| 550 | | | | 900 | | | | | 905 | | | | | 910 | | |
| 552 | Leu | Gly | Ala | Cys | Thr | Lys | Pro | Gln | Gly | Pro | Leu | Met | Val | Ile | Val | Glu |
| 553 | | | 915 | | | | | 920 | | | | | 925 | | | |
| 555 | Phe | Cys | Lys | Tyr | Gly | Asn | Leu | Ser | Asn | Phe | Leu | Arg | Ala | Lys | Arg | Asp |
| 556 | | 930 | | | | | 935 | | | | | 940 | | | | |
| 558 . | Ala | Phe | Ser | Pro | Cys | Ala | Glu | Lys | Ser | Pro | Glu | Gln | Arg | Gly | Arg | Phe |
| 559 | | | | | - | 950 | | - | | | 955 | | _ | - | | 960 |
| 561 | | Ala | Met | Val | Glu | Leu | Ala | Arq | Leu | Asp | Ara | Arg | Ara | Pro | Gly | Ser |
| 562 | | | | | 965 | | | - 5 | | 970 | - 9 | - 9 | - 9 | | 975 | _ |
| 564 | Ser | Asp | Ara | Val | | Phe | Ala | Ara | Phe | - | Lvs | Thr | Glu | Glv | | Ala |
| 565 | | L | 9 | 980 | | | | · 'J | 985 | | -1- | | | 990 | 1 | |
| ~ ~ ~ | | | | 200 | | | | | 200 | | | | | 220 | | |

RAW SEQUENCE LISTING DATE: 09/25/2003 PATENT APPLICATION: US/10/009,508 TIME: 17:32:54

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Output Set: N:\CRF4\09252003\J009508.raw

567 Arg Arg Ala Ser Pro Asp Gln Glu Ala Glu Asp Leu Trp Leu Ser Pro 995 1000 1005 570 Leu Thr Met Glu Asp Leu Val Cys Tyr Ser Phe Gln Val Ala Arg Gly 1015 1010 1020 573 Met Glu Phe Leu Ala Ser Arg Lys Cys Ile His Arg Asp Leu Ala Ala E--> 574 (025) 1025 1030 1035 $\overline{\mathsf{576}}$ $\overline{\mathsf{Arg}}$ Asn Ile Leu Leu Ser Glu Ser Asp Val Val Lys Ile Cys Asp Phe 1050 1045 579 Gly Leu Ala Arg Asp Ile Tyr Lys Asp Pro Asp Tyr Val Arg Lys Gly 580 1060 . 1065 582 Ser Ala Arg Leu Pro Leu Lys Trp Met Ala Pro Glu Ser Ile Phe Asp 1075 1080 585 Lys Val Tyr Thr Thr Gln Ser Asp Val Trp Ser Phe Gly Val Leu Leu 1090 1095 1100 588 Trp Glu Ile Phe Ser Leu Gly Ala Ser Pro Tyr Pro Gly Val Gln Ile 1110 1115 591 Asn Glu Glu Phe Cys Gln Arg Val Arg Asp Gly Thr Arg Met Arg Ala 1125 1130 594 Pro Glu Leu Ala Thr Pro Ala Ile Arg His Ile Met Leu Asn Cys Trp 1140 1145 597 Ser Gly Asp Pro Lys Ala Arg Pro Ala Phe Ser Asp Leu Val Glu Ile 1155 1160 1165 600 Leu Gly Asp Leu Leu Gln Gly Arg Gly Leu Gln Glu Glu Glu Val 1175 1180 603 Cys Met Ala Pro Arg Ser Ser Gln Ser Ser Glu Glu Gly Ser Phe Ser 1190 1195 606 GIn Val Ser Thr Met Ala Leu His Ile Ala Gln Ala Asp Ala Glu Asp 1205 1210 609 Ser Pro Pro Ser Leu Gln Arg His Ser Leu Ala Ala Arg Tyr Tyr Asn 610 1220 1225 612 Trp Val Ser Phe Pro Gly Cys Leu Ala Arg Gly Ala Glu Thr Arg Gly 1240 615 Ser Ser Arg Met Lys Thr Phe Glu Glu Phe Pro Met Thr Pro Thr Thr 1255 1260 618 Tyr Lys Gly Ser Val Asp Asn Gln Thr Asp Ser Gly Met Val Leu Ala 619 265 1270 1275 621 Ser Glu Glu Phe Glu Gln Ile Glu Ser Arg His Arg Gln Glu Ser Gly 1290 1295 624 Phe Arg

DWhen numbering the first amino-acid begin the number directly under the first letter of the our or acid. Please leave a space between lost number and noct amino-acid. example: Met

Glu Phe Leu Ala Ser

VERIFICATION SUMMARY

DATE: 09/25/2003

PATENT APPLICATION: US/10/009,508

TIME: 17:32:55

Input Set : A:\20093-10seq.txt

Output Set: N:\CRF4\09252003\J009508.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application Number L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:574 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:2

M:332 Repeated in SeqNo=2